REMARKS

The amendments to claim 28 conform this claim to the Examiner's suggestions. Support for the amendments is found as follows; thus the amended claims do not constitute new matter.

Claim 28 has been amended to better clarify the claimed invention. Support for amendments to claim 28 clarifying which samples can be genotyped, and for new claim 46 can be found on page 2, lines 24-25 where the use of microarray for genotyping is described for multiple samples from any source, including human, animal, plant, or microbial. Support for amendments to claim 28 clarifying the nature of the oligonucleotide mixture can be found on page 13, lines 2-3, page 14, Table 2, and page 15, lines 14-21.

Additional support for the genotyping of samples using a single round of hybridization in claim 28 can be found on page 16, line 7 and on page 13, line 17 through page 14, line 8 where the hybridization and subsequent detection steps are described. Enclosed is a declaration from Neil Winegarden under 37 CFR § 1.132 showing that one of ordinary skill in the art would understand this application to describe a process whereby simultaneously genotyping multiple mammalian samples can be accomplished in a single round of hybridization.

CONCLUSION

Applicant believes he has addressed all outstanding issues and that the claims are in condition for allowance, and an early Notice of Allowance is respectfully requested. The Examiner is encouraged to call the undersigned if she wishes to discuss any remaining issues or questions.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made**".

In the unlikely event that the fee transmittal is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 529492000100.

Respectfully submitted,

Dated: December 13, 2002 By: _____

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claim 28 has been amended as follows

28. (Amended) A method of simultaneously genotyping multiple samples in a single round of hybridization, the method comprising:

1) incubating a microarray of polynucleotide samples from multiple individuals with a probe mixture of oligonucleotides of known sequence, wherein
   a) the microarray contains a plurality of samples containing genotypes of interest [classes of polynucleotides]with [each class of polynucleotides]sample in a distinct location,
   b) each sample [class of polynucleotides]has polynucleotides with a defined segment containing a marker selected from a marker for a gene and markers for one or more allelic variants of the gene[thereof],
   c) the oligonucleotides in the probe mixture consist essentially of oligonucleotides of known sequence and length and having sequences specifically complementary to those within the defined segments for each sample [of b) for each class of polynucleotides]for which a genotype is to be determined, wherein the oligonucleotides complementary to the polynucleotides [a class of polynucleotides]are selected from those with sequences complementary to a segment containing the marker for (1) [a defined segment of]a gene, (2) [defined segments of]one or more allelic variants of the gene, and (3) [a defined segment of]a gene and [defined segments of]one or more allelic variants of the gene, and also consisting essentially of, optionally, control oligonucleotides,
   d) the incubating [allows the formation of]forms hybrids [comprised]of polynucleotides of the array and complementary oligonucleotides and allows discrimination at single nucleotide resolution; and

2) detecting stable hybrids formed during the incubation, if any, wherein the formation of a hybrid or lack of formation of a hybrid after a single round of hybridization is indicative of a genotype of a mammal .